



Training Proposal for:
Northrop Grumman Corporation
Agreement Number: ET12-0208

Panel Meeting of: **December 16, 2011**

ETP Regional Office: **North Hollywood**

Analyst: M. Webb

PROJECT PROFILE

Contract

Type:

Priority/Retrainee

Retraining - Job Creation

Industry

Sector(s):

Aerospace and Defense

Manufacturing

Counties

Served:

Los Angeles, San Diego

Repeat

Contractor:

☒ Yes ☐ No

Union(s):

☐ Yes ☒ No

Priority

Industry:

☒ Yes ☐ No

No. of Employees in CA: 35,000

No. of Employees Worldwide: 122,000

Turnover Rate %	Manager/ Supervisor %
2%	11%

FUNDING DETAIL

Program Costs	Substantial Contribution	Total ETP Funding
\$599,630	\$70,125	\$529,505

In-Kind Contribution
\$1,109,214

TRAINING PLAN TABLE

Job No.	Job Description (by Contract Type)	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Priority/Retrainee	Manufacturing Skills, Business Skills, Hazardous Materials, Continuous Improvement, Computer Skills	425	24-200	0	\$933	\$14.81
				Weighted Avg: 61			
2	Retrainee/Job Creation	Manufacturing Skills, Business Skills, Hazardous Materials, Continuous Improvement, Computer Skills	109	24-200	0	\$1,220	\$12.34
				Weighted Avg: 61			

Minimum Wage by County: The ETP minimum wage requirement for trainees in Job Number 1 will be \$15.37 per hour for Los Angeles County and \$14.81 per hour for San Diego County. The ETP minimum wage requirement for trainees in Job Number 2 will be \$12.81 per hour for Los Angeles County and \$12.34 per hour for San Diego County.

Health Benefits: ☒ Yes ☐ No This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: ☐ Yes ☒ No

Although employer provides health benefits, they are not being used to meet Post-Retention Wage.

Wage Range by Occupation	
Occupation Title	Wage Range
Administration Staff	
Information Technology/Engineering Staff	
Manager/Supervisor	
Manufacturing/Mechanics/Quality Staff	
Job Creation Administrative Staff, Information Technology/Engineering Staff, Manager/Supervisor, Manufacturing, Mechanics, Quality Staff	

INTRODUCTION

In this proposal, Northrop Grumman Corporation (NGC) seeks funding for retraining as outlined below:

NGC was established in 1939 and has 70 locations within the state of California. The company is best known for its leadership in science and technology manufacturing aircrafts and other systems critical to maintaining the nation's security. These systems are primarily utilized by

government customers in mission areas including intelligence, strike operations, electronic warfare, missile defense, and space science and exploration. The company conducts most of its business with the U.S. Department of Defense, as well as other domestic and international customers.

NGC is eligible for funding as a manufacture and as a priority industry. (Title 22, California Code of Regulations, (CCR) Section 4416(i)(1).)

PROJECT DETAILS

Training proposed in this application is for Northrop Grumman's Aerospace Systems Sector, a merger of the former Integrated Systems and Space Technology sectors. This sector is estimated to be a \$10 billion business and employs approximately 24,000 employees. Training for this Agreement will be conducted at the following facilities; Palmdale, Manhattan Beach, and San Diego.

The Palmdale facility is in the process of implementing a Robotic Integrated Assembly Line (IAL) for the F-35 Joint Strike Fighter. The IAL requires high precision manufacturing processes which include laser guided systems and software. A control system for the shop floor was also built to help achieve full rate production on the F-35. As part of this implementation, it is imperative that all Palmdale employees receive supplemental training to ensure full familiarization with the IAL and new floor control system. Training will include an overview of IAL tooling and automation functions as well as a discussion of safety for operation of the machinery. IAL training will be provided to mechanics, engineers, and other production and support functions involved in the production of the F-35 fuselage.

NGC is also implementing a new enterprise resource planning system called MEP (Manufacturing Execution System). The system is an integrated software program that allows various departments to share information and communicate with each other in real-time. This program will consolidate over 30 different systems into a small number of core systems and processes for building manned and unmanned aircraft at Aerospace Systems. As a result, NGC must provide training to all frontline workers to enable them with the knowledge to use the ERP program properly.

Each of these systems will require training of current employees as well as new hires who will be working with the systems, including extensive training for mechanics, engineers, material, quality and all other departments directly involved in the manufacturing process.

Business Skills training in areas such as Finance/Accounting, Mergers and Acquisitions, Sourcing and Procurement, and Planning will be provided to all frontline employees and supervisors/managers to enhance efficiency.

Computer Skills training will be provided to all trainees in topics such as Aviation System Support, Computer Language Skills, Database Library Skills, and Electronic Data Technology. Employees will receive training to stay up to date on new technologies used in the aerospace industry.

Continuous Improvement training will be provided to all occupations and will be aimed at moving the corporation to a higher level of performance through problem solving and Business Development. The courses provided will equip workers with new approaches to teamwork and decision-making skills.

Hazardous Materials will be provided to NGC's Information Technology/Engineering Staff and Manufacturing/Mechanics/Quality Staff. Hazardous Material training will teach employees how to safely handle encounters with hazardous materials used for facility operations.

Manufacturing Skills training will be offered to all frontline workers in Information Technology/Engineering Staff, and Manufacturing/Mechanics. Staff will receive supplemental skills training in areas such as lean manufacturing, operations and new engineering design methods. Training in this area will increase productivity as well as improve production skills.

Curriculum Development

NGC will provide a menu of approximately 500 curriculum topics to its frontline workforce including new topics and topics that were provided under previous ETP Agreements such as problem solving skills, process management team introduction, eBusiness, contract negotiation skills, contract closeout phases, and essentials of software. Delivery methods used for training include class/lab and E-Learning. The company will also provide any Advanced Safety training that is over the 10% that ETP allows, at its own expense.

Commitment to Training

NGC represents that the request for the proposed ETP-funded training will supplement rather than displace the company's ongoing investment in the training of its workers. Northrop makes a significant commitment to training its workforce and provides ongoing training including: company policies and procedures, new hire orientation, performance management, interviewing/hiring skills, emergency action planning, compliance skills, ethical decision making, introductory computer skills, basic safety skills, employee motivation skills, goal setting, time management, anti-harassment, work/life balance, violence prevention, and stress management. The company will continue to provide this ongoing training during the term of the proposed ETP Agreement and beyond at its own expense. The company expects to invest approximately \$5 million in training in California for 2012.

NGC represents that ETP funds will not displace the existing financial commitment to training and that safety training is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

High Unemployment Area

The 150 trainees in Job Numbers 1 and 2 that work in the city of Palmdale are located in a High Unemployment Area (HUA). This is a region with unemployment exceeding the state average by 15%. (Title 22, CCR, Section 4429(b).) NGC is not asking for a wage modification.

Retrainee - Job Creation

Training is exclusively for newly-hired employees. Trainees must be hired within 3-months before the date of the project approval, or within the term of contract as long as training and retention can be completed within the term of the Agreement.

The IAL is a vital tool that will allow NGC to achieve full rate production by the 2015 planned deadline. Between now and then the company plans to incrementally increase the number of units produced each year until they have the capability of producing 162 units per year. This new increase in production will require NGC to add approximately 500 new employees at the Palmdale facility over the next 2-3 years. The company expects this new growth to include approximately 200 mechanics as well as 300 manufacturing and industrial engineers to support

the increase in production. Under the proposed Agreement, NGC plans to hire approximately 109 new hires.

NGC plans to hire entry level mechanics from a pool of individuals who are trained through a community college program offered in partnership with Antelope Valley College and West Los Angeles College. This training is done prior to the participants becoming NGC employees and is paid for by the trainee/individual. All participants who complete the class are granted an interview for an entry level position at NGC and if hired will then receive additional job specific training from the company.

In addition to hiring entry level mechanics, NGC also plans to recruit senior level mechanics that have more knowledge and experience of the aircraft industry. These individuals are recruited through multiple sources including job fairs, existing military and lay-offs from other companies. Northrop is also committed to hiring and assisting military-experienced candidates and employees. The company finds they bring a unique set of skills and point-of-view to the company, and have a first-hand appreciation and passion for NGC's, business, products and services.

Substantial Contribution

NGC is a repeat contractor but has not earned payment in excess of \$250,000 at each location listed within the past five years (Palmdale, Manhattan Beach, and San Diego). Although payment earned does not exceed \$250,000 at the locations under this agreement, NGC has voluntarily agreed to a 15% Substantial Contribution. NGC as a whole has earned approximately \$1.5 million dollars and held 15 projects in the last 10 years. Accordingly, reimbursement for trainees at the facilities in Job Number 1 will be reduced by 15% to reflect the company's \$70,125 Substantial Contribution to the cost of training.

RECOMMENDATION

For the reasons set forth above, staff recommends approval of this proposal.

PRIOR PROJECTS

The following table summarizes performance by the NGC under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned
ET08-0314	Southern California (31 Locations)	01/07/08- 01/06/10	\$1,499,000	\$699,067 (46%)
ET07-0252	Sunnyvale	12/30/06- 12/29/08	\$1,004,400	\$214,178 (21%)

*ET08-0314 – Advanced Safety Training makes up a majority of the company's specialized business. As a result, many of the training courses offered did not meet ETP requirements due to a limitation of safety training (10%). Training under this Agreement was also delayed because of an unexpected change in business priorities. This included a push for new development projects taken on due to the downturn of

the economy. A breakdown of total earnings is as follows; Palmdale Facility-\$99,707, Manhattan Beach Facility- \$134,231, and the San Diego Facility-\$140, 335.

DEVELOPMENT SERVICES

NGC retained Training Funding Partners in Tustin to assist with development of this proposal for a flat fee of \$29,500.

ADMINISTRATIVE SERVICES

NGC also retained Training Funding Partners to perform administrative services in connection with this proposal for a fee not to exceed 13% of payment earned.

TRAINING VENDORS

To Be Determined

Exhibit B: Menu Curriculum**Class/Lab Hours****E-Learning Hours**

24-200

Trainees may receive any of the following:

Manufacturing Skills

- Advanced Safety Skills
 - Asbestos Awareness
 - Certified Oxygen Cleanliness Instructor
 - Nuclear Safety Training
 - Weapon System Safety Training
 - IAL (Integrated Assembly Line Safety)
- Aerospace Systems
- Aircraft Structural Design/Development
- Air force Evaluation Skills
- Atmospheric Physics/Aerodynamics//Flight Dynamics
- Barcode Skills
- Change Effectivity Notice
- Chemistry/Physics of Metals
- Configuration Planning and Management
- Design & Analysis of Bolted Joint
- Distribution Mission Operations
- Electric Cutter
- Electrical Engineering for Manufacturing Engineers
- Electrical Products
- Energy Storage
- Engineering Design/Engineering Skills
- Engineering Requirements Parts List
- Fatigue Analysis
- Fracture Mechanics
- Fuel System Design Skills
- Geometric Dimensioning & Tolerancing
- Government Source Inspection Skills
- Graphic Document Skills
- Heat Treat of Steels
- Helicopter Performance, Stability and Control
- High Temperature Materials
- Integrated Functional Capability
- International Traffic in Arms Regulations
- Laser Technology
- Lean Manufacturing Skills
- Manufacturing Execution System
- Manufacturing Operations Skills
- Manufacturing Resource planning
- Measurement Device Skills
- Micro inequities: The Power of Small
- Microwave Devices

- Missile Defense Agency/Missile Systems
- Production Control
- Radar Cross Section
- Simulink for Systems and Algorithm Modeling
- System Evaluation and Estimation of Resources
- Technical Requirement Management
- Test Process Skills
- Vehicle Design Equipment Integration
- Verification and Validation Skills
- Vibration and Shock Isolation Design and Analysis
- Visual Basic Ram/Radome Optimization Program

Business Skills

- Asset Identification/Planning Skills
- Business/Technical Writing Skills
- Business Development/Management Skills
- Business Process Management Skills
- Communication Skills
- Contractor Risk Assessment Skills
- Cost Estimation Skills
- Customer Service Skills
- Documentation Skills
- Earned Value Management
- Estimation Tools
- Export Management
- Finance/Accounting Skills
- Integrated Management, Operating Model, Earned Value
- Integrated Management, Planning, and Control for Assembly System
- Intellectual Property Knowledge and Skills
- Mergers and Acquisitions
- Metrics/Measurement
- Negotiation Skills
- Planning and Scheduling
- Presentation Skills
- Pricing/Estimation Skills
- Procurement skills
- Proposal Process/ Development Strategy
- Proprietary Information Exchange
- Security Management
- Sourcing and Procurement Skills
- Subcontracting Skills
- Supply Chain Management
- Train-the-Trainer Skills
- Understanding and Managing Contracts

Hazardous Materials

- CTS (Central Transfer Station) Hazwaste Generator
- DOT (Department of Transportation) HAZMAT For Transportation
- DOT Hazmat Security Awareness
- IATA (International Air Transportation Association) Dangerous Goods

Continuous Improvement Skills

- Architectural Modeling Skills
- Capability Maturity Model Integration
- Change Management Skills
- Configuration Planning and Management
- Conflict Management Skills
- Enterprise Resource Planning
- Facilitation Skills
- Global Perspectives
- ISO Standards
- Leadership Skills
- Material Requirements Planning
- Meeting Management Skills
- Process Improvement Skills
- Project Collaboration Software
- Project/Program Management Skills
- Proposal Management and Analysis Tool
- Quality Assurance/Quality Control
- Risk Management Skills
- Six Sigma Skills
- Strategic Thinking Skills
- Systems and Software Quality Assurance Skills
- Team Building Skills
- Troubleshooting Skills
- Waste Reduction Skills

Computer Skills

- Aviation System Support
- Business Intelligence/Business Warehouse Skills
- Computer Aided Design Skills
- Computer Aided Production Environment
- Computer Assisted Three-Dimensional Interactive Application
- Computer Language Skills
- Computer Programming Skills
- Data /Database Management Skills

- Digital Data Overview
- Document Sharing Process System
- Dynamic Object Oriented Requirements System
- Earned Value Management System
- Electronic Data Technology
- Engineering Software Skills
- Enterprise Architecture
- Enterprise Resource Planning System
- Enterprise Export Management System Skills
- Fiber Channel Storage Networking
- Information Handling System
- Information Systems Security
- Intermediate/Advanced MS Office Skills
- Internet Protocol Skills
- Learning Exchange System Skills
- Microsoft Architecture Software/Systems
- Microsoft Project
- Microsoft Visio
- Opportunity Tracking Tool
- Parts System Skills
- PeopleSoft System Skills
- Product Data Management
- Real Time Operating System
- SAP Skills
- Service Oriented Architecture
- Software Configuration Management
- Software/Hardware Skills
- System Architecture/Design Skills
- Visual Basic Skills
- Web Design/Content Management

Safety Training will be limited to 10% of total training hours per-trainee

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery.